# **Asset Tracking Profile (ATP)**

Bluetooth® Implementation Conformance Statement (ICS) Proforma

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# **1** General principles

# **1.1** Implementation Under Test (IUT) identification

Using the Bluetooth SIG qualification tool, the implementer is expected to declare details about what will be implemented.

# **1.2 Enforcement of inter-layer dependencies**

This ICS includes one or more tables with inter-layer dependencies (ILDs). ILDs are used for specification requirements that are dependent on other supporting specifications. ILDs can refer to an individual ICS item in a separate layer (individual ILD), or it can refer to the full layer (full-layer ILD).

ILDs residing in an X2Core layer will be enforced from the Bluetooth SIG qualification tool in the following conditions, depending on where the referred ILD is residing:

Referred ILD resides in	Individual ILD	Full-layer ILD
Controller layer	Core-Complete configuration, or Referred layer is supported	N/A
Lower HCI layer	HCI is supported	N/A
Upper HCI layer	Core-Host configuration, or UHCI is supported	N/A
Host layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	N/A
X2Core layer	Core-Host configuration, or Core-Complete configuration, or Referred layer is supported	Core-Host configuration, or Core-Complete configuration

Table 1.1: Enforcement of an ILD within the Bluetooth SIG qualification tool



# 2 ICS declarations

## 2.1 Roles

#### Table 1: Role Requirements

Item	Role	Reference	Status
1	Asset Tag	[1] 2.1	C.1
2	Locator	[1] 2.1	C.1

C.1: Mandatory to support at least one.

# 2.2 Transports

#### **Table 2: Transport Requirements**

Item	Transport	Reference	Status
1	Profile supported over BR/EDR	[1] 1.5	C.1
2	Profile supported over LE	[1] 1.5	C.2, C.3

C.1: Excluded for this Profile.

C.2: Excluded for this Profile IF CORE 41/1 "BR/EDR Core Configuration".

C.3: Mandatory for this Profile.

## 2.3 Asset Tag Role

#### 2.3.1 Versions

#### Table 3: X.Y Versions

Prerequisite: ATP 1/1 "Asset Tag"

ltem	Version	Reference	Status
1	ATP v1.0	[1]	М

Table 4: X.Y.Z Versions

Table number reserved but not yet in use

#### 2.3.2 Services – Asset Tag

#### Table 5: Service Requirements – Asset Tag

Prerequisite: ATP 1/1 "Asset Tag"

ltem	Feature	Reference	Status	Inter-Layer Dependency
1	Constant Tone Extension Service	[1] 3	М	[5] CTES
2	Include Constant Tone Extension Service UUID in AD in GAP Discoverable Mode	[1] 3.1.1	0	N/A
3	Include Local Name in AD or Scan Response	[1] 3.1.2	0	N/A
4	Writable Device Name	[1] 3.1.3	0	[3] GAP 27/6



ltem	Feature	Reference	Status	Inter-Layer Dependency
5	Include Appearance in AD or Scan Response	[1] 3.1.4	0	N/A

## 2.3.3 GAP requirements – Asset Tag

#### Table 6: GAP Requirements – Asset Tag

Prerequisite: ATP 1/1 "Asset Tag"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4	М	[3] GAP 5/3 OR GAP 38/3
2	Central	[1] 2.4	0	[3] GAP 5/4 OR GAP 38/4
Periph	neral Features			
3	Bondable mode	[1] 6.1	0	[3] GAP 24/2
4	Multiple Bonds	[1] 3	C.1	[3] GAP 24/4
5	LE security mode 1	[1] 6.1	0	[3] GAP 25/1
6	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.1	C.2	[3] GAP 25/7
7	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.1	C.2	[3] GAP 25/8
8	LE security mode 1 level 4	[1] 6.1	C.2	[3] GAP 25/9
9	Privacy feature	[1] 6.1	0	[3] GAP 26/1
Centra	al Features			
10	Bondable mode	[1] 6.1	C.3	[3] GAP 34/2
11	LE security mode 1	[1] 6.1	C.3	[3] GAP 35/1
12	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.1	C.4	[3] GAP 35/8
13	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.1	C.4	[3] GAP 35/7
14	LE security mode 1 level 4	[1] 6.1	C.4	[3] GAP 35/9
15	Privacy feature	[1] 6.1	C.3	[3] GAP 36/1

C.1: Optional IF ATP 6/3 "Bondable mode", otherwise not defined.

C.2: Optional IF ATP 6/5 "LE security mode 1", otherwise not defined.

C.3: Optional IF ATP 6/2 "Central", otherwise not defined.

C.4: Optional IF ATP 6/11 "LE security mode 1", otherwise not defined.

#### Table 7: No longer used

## 2.3.4 LL requirements – Asset Tag

#### Table 8: LL Requirements – Asset Tag

Prerequisite: ATP 1/1 "Asset Tag"

ltem	Feature	Reference	Status	Inter-Layer Dependency
1	Connection CTE Response	[1] 2.5	М	[4] LL 9/15

# 2.4 Locator Role

#### 2.4.1 Versions

#### Table 0a: X.Y Versions

Prerequisite: ATP 1/2 "Locator"

ltem	Version	Reference	Status
1	ATP v1.0	[1]	М

#### Table 0b: X.Y.Z Versions

#### Table number reserved but not yet in use

#### 2.4.2 Service Support – Locator

#### Table 9: Service Support – Locator

Prerequisite: ATP 1/2 "Locator"

Item	Feature	Reference	Status
1	Constant Tone Extension Service	[1] 4	М

#### 2.4.3 Discover Services and Characteristics – Locator

#### Table 10: Discover Services and Characteristics – Locator

Prerequisite: ATP 1/2 "Locator"

ltem	Feature	Reference	Status
1	Discover Constant Tone Extension Service	[1] 4	М
2	Discover Constant Tone Extension Enable Characteristic	[1] 4.3.1	М
3	Discover Device Name Characteristic	[1] 3.1.1.3	0



## 2.4.4 Features – Locator

#### Table 11: Features – Locator

Prerequisite: ATP 1/2 "Locator"

Item	Feature	Reference	Status
1	Write Constant Tone Extension Enable Characteristic	[1] 4.4.1	М
2	Read Device Name Characteristic	[1] 4, 3.1.1.3	0
3	Write Device Name Characteristic	[1] 4, 3.1.1.3	0
4	Connection Constant Tone Extension Request	[1] 4.4.1	М
5	Verify Bond Status on Reconnection	[1] 6.2	C.1

C.1: Mandatory IF ATP 13/10 "Bondable mode", otherwise Excluded.

#### 2.4.5 GATT requirements – Locator

#### Table 12: GATT Requirements – Locator

Prerequisite: ATP 1/2 "Locator"

ltem	Feature	Reference	Status	Inter-Layer Dependency
1	No longer used	N/A	N/A	N/A
2	GATT Client over LE	[1] 2.5	М	[2] GATT 1a/1
3	Discover All Primary Services	[1] 4.1	C.1	[2] GATT 3/2
4	Discover Primary Services by Service UUID	[1] 4.1	C.1	[2] GATT 3/3
5	Discover All Characteristics of a Service	[1] 4.1	C.2	[2] GATT 3/5
6	Discover Characteristics by UUID	[1] 4.1	C.2	[2] GATT 3/6
7	Read Characteristic Value	[1] 4.1	М	[2] GATT 3/8
8	Write Characteristic Value	[1] 4.1	Μ	[2] GATT 3/14

C.1: Mandatory to support at least one.

C.2: Mandatory to support at least one.

#### 2.4.6 GAP requirements – Locator

#### Table 13: GAP Requirements – Locator

Prerequisite: ATP 1/2 "Locator"

ltem	Feature	Reference	Status	Inter-Layer Dependency
1	Peripheral	[1] 2.4	0	[3] GAP 5/3 OR GAP 38/3
2	Central	[1] 2.4	Μ	[3] GAP 5/4 OR GAP 38/4
Peripheral Features				
3	Bondable mode	[1] 6.2	C.1	[3] GAP 24/2
4	Multiple Bonds	[1] 3	C.2	[3] GAP 24/4
5	LE security mode 1	[1] 6.2	C.1	[3] GAP 25/1



Item	Feature	Reference	Status	Inter-Layer Dependency
6	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.2	C.3	[3] GAP 25/7
7	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.2	C.3	[3] GAP 25/8
8	LE security mode 1 level 4	[1] 6.2	C.3	[3] GAP 25/9
9	Privacy feature	[1] 6.2	C.1	[3] GAP 26/1
Central Features				
10	Bondable mode	[1] 6.2	0	[3] GAP 34/2
11	LE security mode 1	[1] 6.2	0	[ <mark>3]</mark> GAP 35/1
12	Unauthenticated Pairing (LE security mode 1 level 2)	[1] 6.2	C.4	[3] GAP 35/8
13	Authenticated Pairing (LE security mode 1 level 3)	[1] 6.2	C.4	[3] GAP 35/7
14	LE security mode 1 level 4	[1] 6.2	C.4	[3] GAP 35/9
15	Privacy feature	[1] 6.2	0	[3] GAP 36/1

C.1: Optional IF ATP 13/1 "Peripheral", otherwise not defined.

C.2: Optional IF ATP 13/3 "Bondable mode", otherwise not defined.

C.3: Optional IF ATP 13/5 "LE security mode 1", otherwise not defined.

C.4: Optional IF ATP 13/11 "LE security mode 1", otherwise not defined.

#### Table 14: No longer used

#### 2.4.7 LL requirements – Locator

#### Table 15: LL Requirements – Locator

Prerequisite: ATP 1/2 "Locator"

Item	Feature	Reference	Status	Inter-Layer Dependency
1	Connection CTE Request	[1] 2.5	М	[4] LL 9/14
2	2 µs Antenna Switching and Sampling During Constant Tone Extension Reception (AoA)	[1] 2.5	М	[4] LL 9/21



# **3 References**

- [1] Asset Tracking Profile Specification, Version 1.0
- [2] ICS Proforma for Generic Attribute Profile (GATT)
- [3] ICS Proforma for Generic Access Profile (GAP)
- [4] ICS Proforma for Link Layer (LL)
- [5] ICS Proforma for Constant Tone Extension Service (CTES)



# 4 Revision history and acknowledgments

#### **Revision History**

Publication Number	Revision Number	Date	Comments
0	p0	2021-01-19	Approved by BTI on 2020-12-06. ATP v1.0 adopted by BoD on 2021-01-12. Prepared for publication.
	p1r00–r02	2023-09-08 – 2023-12-11	TSE 23346 (rating 2): Resolved GAP and SM inter-layer dependencies: Marked Tables 7 and 14 as no longer used. In Table 12, marked Item 1 as no longer used and updated the Feature and ILD values for Item 2. Updated the copyright page to align with v2 of the DNMD. Updated the references. Made editorial edits to align the document with the latest ICS template. Deleted draft revision history comments prior to p0.
1	p1	2024-07-01	Approved by BTI on 2024-04-21. Prepared for TCRL 2024-1 publication.
	p2r00–r03	2025-02-26 – 2025-05-13	TSE 27346 (rating 1): Updated the Status value for ATP 2/2 and added conditions C.2 and C.3. Incorporated editorials to align the document with the latest ICS template: Updated Section 1 and added a section heading for the ICS declarations section.
2	p2	2025-07-08	Approved by BTI on 2025-06-15. Prepared for TCRL pkg100 publication.

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